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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/771,291

02/05/2004

James W. Laursen

M4065.0243/P243 A

3240

24998

7590

07/12/2004

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP

2101 L STREET NW

WASHINGTON, DC 20037-1526

EXAMINER

WACHSMAN, HAL D

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



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10/771,291

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER
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07072004

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Hal D Wachsman
Primary Examiner
Art Unit: 2857

Office Action Summary	Applicati n No. 10/771,291	Applicant(s) LAURSEN ET AL.	
	Examin r Hal D Wachsmann	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38-59 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2-5-04</u> . | 6) <input type="checkbox"/> Other: _____ |

1. This application is in condition for allowance except for the following formal matters:

a) The drawings are objected to because Figures 1-3 and 10-13 were known in the prior art (see BACKGROUND OF THE INVENTION) however were not labeled as "Prior Art" and the Brief Description of the Drawings does not describe these drawings as being prior art. Appropriate correction is required.

b) The statement of continuing data on page 1 of the specification does not provide the current status of U.S. application serial no. 09/652,218 (i.e. this is now U.S. patent no. 6,708,131). Appropriate correction is required.

c) The Brief Description of the Drawings refers to a Figure 4 however in the formal drawings filed 2-5-04 there are actually Figures 4A and 4B. The Brief also refers to a Figure 14 however in those same formal drawings there are actually Figures 14A and 14B. The Examiner notes that these types of problems are also found in other various locations of the specification such as for example on page 7, line 12. Appropriate correction is required.

d) The last page of the specification (page 16) has "What is claimed as new...". However, normally this is placed on the first page of the claims before the first claim.

e) Claims 38-54 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 38, lines 7-8, cite "a processor arranged to transform the calibration data to account for a change in processing orientation of a production

wafer..." which does not particularly point out in what way the calibration data is being transformed and how exactly this transformed calibration data accounts for the change being claimed. This same type of problem also occurs in claim 48, line 2. Claim 39, line 2, cites "an arrangement" but exactly what type of arrangement is being referred to here ? The preamble of claim 44 cites "A wafer processing apparatus as recited in claim 43..." which should be "A wafer production system...". Claim 46, line 8, cites "an arrangement controlled to adjust.." however exactly what type of arrangement is being referred to here ? Claim 50, line 2, cites "the calibration wafers" however the antecedent basis is singular. The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

2. The following references are cited as being art of general interest: Leroux (6,671,048) which discloses determining wafer misalignment using a pattern on a fine alignment target, Brunner (4,929,083) which discloses a calibration wafer and Nishi et al. (6,549,269) which disclose wafer alignment.

3. Claims 38-45 are allowable over the prior art because the prior art does not disclose or suggest: a system arranged to acquire calibration data representative of a difference in alignment between a first pattern formed on a calibration wafer in a first machine that processes wafers in a first orientation and a second pattern formed on the calibration wafer in a second machine that processes wafers in a second orientation with a processor that transforms the calibration data to account for a change in processing orientation of a production wafer between the two machines.

Claims 46-54 are allowable over the prior art because the prior art does not disclose or suggest: a second of two devices, arranged to form a second of two patterns on a calibration wafer in a first orientation in a second of two machines which are used for processing production wafers; and an arrangement controlled to adjust an alignment of a production wafer processed in a second orientation in the second machine based on differences between the two patterns on the calibration wafer.

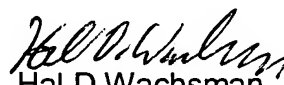
Claims 55-59 are allowable over the prior art because the prior art does not disclose or suggest: a second of two devices, which is controlled to form a second of two calibration patterns on a calibration wafer in a first orientation, and to process a production wafer in a second orientation different from the first orientation and aligned based on differences between the first calibration pattern, which was formed on the calibration wafer in the first orientation by the first device, and the second calibration pattern.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D Wachsman whose telephone number is 571-272-

2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Hal D Wachsman
Primary Examiner
Art Unit 2857

HW
July 7, 2004